

REMARKS

The application has been reviewed in light of the Final Office Action mailed on June 19, 2006. Claims 1-3, 6-11, 16-23 and 32-35 are currently pending in the application, with Claims 1, 18 and 32 being in independent form. By this Amendment document, Claims 1-3, 6-11, 17, 18 and 21-23 have been amended; Claims 12-15 have been canceled without prejudice; and Claims 32-35 are newly presented. It is respectfully submitted that the claims pending in the application, namely Claims 1-3, 6-11, 17-23 and 32-35 are fully supported by the specification, introduce no new subject matter, and are patentable over the prior art. In view of the remarks to follow, reconsideration and allowance of the claims of this application are respectfully requested.

Applicants appreciatively thank Examiner Gordon for his time and consideration extended to Applicant's representative, Rosa B. Suazo, Esq., during a telephone interview conducted on August 8, 2006. During the interview, with reference to the Final Office Action, the rejection of Claims 1-3 and 6-21 under 35 U.S.C. § 112 was discussed at length. Applicants are grateful to Examiner Gordon for all of his suggestions stated in the Office Action and during the interview of August 8, 2006.

Rejection of Claims under 35 U.S.C. § 112

Claims 1-23 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In addition, Claims 1-23 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-3, 6-11, 17, 18 and 21-23 have been amended in a manner believed to overcome the rejection.

The term “interconnect” has been replaced by the term “interconnected” in all the claims in which it is included, as suggested by the Examiner in the Final Office Action.

Claims 1 and 18

With reference to independent Claims 1 and 18, the Examiner indicated that the Markush group specified in the first element of Claims 1 and 18 “is not in the form of a Markush group in which any single material may be selected as the material which composes the ceramic layer.” It is respectfully submitted that a Markush group recites members as being “selected from the group consisting of A, B and C.” See MPEP Section 2173.05(h). Claims 1 and 18 have been amended to change the numerical order of the recitation of the last two materials of the group. In particular the claims were amended to recite “... material selected from the group consisting of alumina, glass ceramic, aluminum nitride, glass and borosilicate glass” to avoid any confusion that the recitation may have caused. It is respectfully submitted that this recitation complies with the correct form of a Markush-type claim, as described in MPEP Section 2173.05(h).

In addition, Claims 1 and 18 have been amended to remove the recitation “a member of each of.” Claims 1 and 18 now recite “with each sample cell containing said at least two vertical passages.” It is respectfully submitted that the specification and drawings support this limitation. Moreover, Claims 1 and 18 are believed to be in condition for allowance. Thus Applicants respectfully request that the rejection of independent Claims 1 and 18 be withdrawn.

Claims 4 and 5

Claims 4 and 5 were canceled in an Amendment dated April 6, 2006. It is respectfully requested that the rejection of these claims be withdrawn.

Claims 6 and 7

Claims 6 and 7 were rejected for lacking antecedent basis of the second and third layers. Dependent Claims 6 and 7 have been amended to remove this recitation and to add the recitation “first layer, corresponding layer, and lower layer”. It is respectfully submitted that this recitation finds antecedent in the base claim. It is respectfully submitted that Claims 6 and 7 are in condition for allowance. Thus, Applicants respectfully request that the rejection of these claims be withdrawn.

Claims 8-11 and 22

Claims 8-11 and 22 were rejected for lack of antecedent basis with respect to the recitation “the layer that forms the bottom surface.” Claims 8-10 have been amended to read “said lower layer” and to remove the recitation “the layer that forms the bottom surface of the horizontal and vertical interconnect structure.” Claims 8-10 now recite “... in which said lower layer is...” Claim 11 has been amended to change the dependability from Claim 9 to Claim 8. Claim 22 has been amended to remove the recitation “bottom layer” and the recitation “that forms the bottom surface of the horizontal and vertical interconnect structures.” Claim 22 now reads “... in which the bottom layer is transparent.” It is respectfully submitted that Claims 8-11 and 22 are believed to be in condition for allowance. Thus, Applicants respectfully request that the rejection of these claims be withdrawn.

Claims 12-15

In the Office Action of December 6, 2005, the Examiner objected to Claims 12-15 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims and to overcome the 112 second paragraph rejections. Applicants have restored the limitations of original Claims 12-15, as allowable by the Examiner in the Office Action of December 6, 2005. In addition, Applicants have rewritten Claims 12-15 as new Claims 32-35. New Claims 32-35 include all of the limitations contained in original Claims 12-15, respectively. In particular, Canceled Claim 12 has been rewritten as new Claim 32 and includes all of the limitations of Claim 1. In addition, canceled Claims 13-15 have been rewritten as new Claims 33-35, respectively, that depend from new Claim 32. Applicants respectfully submit that Claims 32-35 are in condition for allowance.

Claim 17

Claim 17 was amended to add the limitation “at least two” before each of the recitations “vertical passages”. It is respectfully submitted that Claim 17 is in condition for allowance. Thus, Applicants respectfully request that the rejection of this claim be withdrawn.

Claim 23

Claim 23 was amended to add the limitation “at least two” before the recitation “vertical passages.” In addition, the recitation “a container” replaces the recitation “a space.” It

is respectfully submitted that Claim 23 is in condition for allowance. Applicants thus respectfully request that the rejection of this claim be withdrawn.

Rejection of Claims 18-23 under 35 U.S.C. § 102(b)

Claims 18-23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dugan (US 5,843,385). Applicants have amended independent Claim 18.

It is respectfully submitted that independent Claim 18 is patentable over Dugan. For example, Dugan fails to disclose or suggest the recited “a plurality of ceramic layers sintered together,” of Claim 18. In contrast, Dugan recites that “the reactor plate(s) are preferably composed of a thermally conductive material, more preferably metal.” Column 9, lines 29-30. In addition, Dugan recites “preferably the individual reactor plates are removably attached to one another to facilitate cleaning, inspection and re-use of the plates. Column 9, lines 56-58. Accordingly, it is respectfully requested that the rejection of independent Claim 18 be withdrawn.

Claims 19-23 depend directly or indirectly from independent Claim 18 and are therefore patentable for at least the reasons given hereinabove for independent Claim 18. Applicants respectfully request that the rejection of these claims be withdrawn.

Rejection of Claims 1-11 and 16-23 under 35 U.S.C. § 102(e)

Claims 1-11 and 16-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Anazawa et al. (US 2003/10175162). Applicants have amended independent Claims 1 and 18.

It is respectfully submitted that independent Claims 1 and 18 are patentable over Anazawa. For example, Anazawa et al. fails to disclose or suggest the recited “a plurality of ceramic layers sintered together,” of Claims 1 and 18. In contrast, Anazawa et al. is directed to a microdevice having a laminated structure “comprising an active energy ray curable resin layer...” Paragraph [0002]. Accordingly, it is respectfully requested that the rejection of independent Claims 1 and 18 be withdrawn.

Claims 2, 3, 6-11, 16, 17 and 19-23 depend directly or indirectly from independent Claims 1 and 18 and are therefore patentable for at least the reasons given hereinabove for independent Claims 1 and 18. Applicants respectfully request that the rejection of these claims be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that all claims now pending in this application, namely Claims 1-3, 6-11, 16-23 and 32-35 are now in condition for allowance. Accordingly, early and favorable consideration of this application is respectfully requested. Should the Examiner believe that a telephone or personal interview may facilitate resolution of any remaining matters, he is respectfully requested to contact Applicants undersigned attorney at the telephone number indicated below.

No fee is believed to be due for the submission of this amendment. If any fees are required, however, the Commissioner is authorized to charge such fees to Deposit Account No. 09-0458.

Respectfully Submitted,

/Rosa Suazo/
Rosa Suazo
Reg. No. 56,753
Attorney for Applicants
Phone: (845) 892-9701

International Business Machines Corporation

D/18G, B/321, Zip 482
2070 Route 52
Hopewell Junction, NY 12533
Phone: (845) 892-9701
Fax: (845) 892-6363